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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/927,985	08/10/2001	Mark A. Carlson	P5445	5982

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EXAMINER

BATES, KEVIN T

ART UNIT PAPER NUMBER

2155

DATE MAILED: 02/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/927,985

Applicant(s)

CARLSON ET AL.

Examiner

Kevin Bates

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 9-21, 24-29, 31-37, 40-46, 49-61, 64-66 and 69 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 9-21, 24-29, 31-37, 40-46, 49-61, 64-66 and 69 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11-28</u> . | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment

This Office Action is in response to a communication made on November 28, 2005.

The Information Disclosure Statement has been received on November 28, 2005 and has been considered.

Claims 1, 10, 25, 32, 41, 50, and 65 have been amended.

Claims 7-8, 22-23, 30, 38-39, 47-48, 62-63, 67, and 68 have been cancelled.

Claims 1-6, 9-21, 24-29, 31-37, 40-46, 49-61, 64-66, and 69 are currently pending in this application.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1-6, 9-21, 24-29, 31-37, 40-46, 49-61, 64-66, and 69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wolff (6067545) in view of Sankaranaraya (6799208).

Regarding claims 1, 25, 32, 41, and 65, Wolff teaches a method for configuring multiple resources in a system (Column 2, lines 37 – 41), wherein each resource is capable of being configured by multiple elements associated with that resource, each element configuring that resource in a manner different from other elements (Column 5, line 65 – Column 6, line 5), comprising: receiving a user request for an operation that

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requires separately configuring multiple resources in the system (Column 6, lines 10 – 14; 55 – 64); in response to the user request (Column 6, lines 18 – 30), communicate commands to a selected element for each resource (Column 6, lines 35 – 46, information from the configuration database); for each element receiving at least one of the communicated commands (Column 7, lines 18 – 22), performing: (i) interpreting the received command (Column 13, lines 9 – 16); (ii) configuring its associated resource as requested by the received command (Column 13, lines 9 – 16), wherein all resource configurations performed by all the elements in response to receiving the commands implement the user requested operation with the predetermined service quality (Column 6, lines 35 – 46; Column 8, lines 10 – 16).

Wolff does not explicitly indicate selecting a service configuration policy that implements a predetermined service quality; using the service configuration policy to communicate commands and that there is at least one API command that is meant to be called to configure each resource.

Sankaranarayan teaches a system for managing resources that includes configuring resources in the system based on requests by users (Column 2, lines 5 – 11), included in Sankaranarayan's system is a policy server for having a various set of policies that can be used by the manager in allocating and configuring resources according to those set policies (Column 8, lines 39 – 51) and that there are API commands to configure the resources in the system (Column 2, lines 43 – 48; Column 8, line 66 – Column 9, line 4; Column 36, lines 64 – 67, wherein the API commands

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perform operations to register resources, check resource status, and locking and modifying states of resources).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Sankaranarayan's teachings of setting policies for priorities and service levels and using those policies for configuring resources in Wolff's system in order to allow Wolff's system in order to allow a greater and more intelligent control over the resource allocations based on needs not just demand (Column 1, lines 53 – 67).

Regarding claims 2, 33, 42, and 66, which depend on claims 1, 32, 51, and 67 respectively, Wolff teaches that the user requested operation comprises a request to allocate at least one resource in the system to a host in the system (Column 6, lines 56 – 64).

Regarding claim 26, which depends on claim 25, Wolff teaches that the user requested operation comprises a request to allocate at least one resource in the system to a host in the system, wherein the element operations comprise configuration operations to configure the managed resources to implement the user specified resource allocation (Column 6, lines 56 – 64).

Regarding claims 9, 40, and 49, which depend on claims 1, 32, and 41, respectively, Wolff teaches that the commands are communicated by using element proxy objects registered with a lookup service (Column 6, lines 35 – 46).

Regarding claim 31, which depends on claim 25, Wolff teaches that there are multiple management programs (Column 6, lines 35 – 38), wherein each management

program calls one of the multiple elements for each resource to control, and wherein different management programs call different elements for at least one resource to perform different operations with respect to the resource (Column 6, lines 39 – 46).

Regarding claim 69, which depends on claim 65, Wolff teaches that the manager object and element objects comprise proxy objects, further comprising: a lookup service (Column 6, lines 35 – 37) including registered instances of the manager proxy objects and element proxy objects, wherein the manager and element proxy objects include code enabling access to the operations performed by the proxy objects (Column 16, lines 39 – 63).

Regarding claims 10 and 50, Wolff teaches a method for managing multiple resources in a system (Column 2, lines 37 – 41) wherein each resource is capable of being configured by multiple elements, each element configuring that resource in a manner different from other elements (Column 5, line 65 – Column 6, line 5), comprising: registering a configuration service proxy object with a lookup service (Column 6, lines 35 – 38), wherein the configuration service proxy object includes code enabling access to a configuration service capable of configuring resources in the system (Column 9, lines 35 – 44); registering configuration element proxy objects with the lookup service (Column 6, lines 35 – 46), wherein the configuration element proxy objects include code enabling access to element configurations that are capable of configuring system resources (Column 6, lines 35 – 46); using the code in the configuration proxy object to communicate a user request (Column 6, lines 10 – 14; 55 – 64) for a configuration operation with respect to at least one system resource to the

configuration service; and using, with the configuration service, the code in the configuration element proxy objects to communicate commands to a selected one of the configuration elements for each resource to implement the requested configuration operations (Column 13, lines 9 – 16); and in response to receiving the commands from the configuration service, performing, with the configuration elements, a configuration operation on the resource indicated in the received commands (Column 6, lines 35 – 46).

Wolff does not explicitly indicate selecting a service configuration policy that implements a predetermined service quality; using the service configuration policy to communicate commands and that there is at least one API command that is meant to be called to configure each resource.

Sankaranarayan teaches a system for managing resources that includes configuring resources in the system based on requests by users (Column 2, lines 5 – 11), included in Sankaranarayan's system is a policy server for having a various set of policies that can be used by the manager in allocating and configuring resources according to those set policies (Column 8, lines 39 – 51) and that there are API commands to configure the resources in the system (Column 2, lines 43 – 48; Column 8, line 66 – Column 9, line 4; Column 36, lines 64 – 67, wherein the API commands perform operations to register resources, check resource status, and locking and modifying states of resources).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Sankaranarayan's teachings of setting policies for priorities

and service levels and using those policies for configuring resources in Wolff's system in order to allow Wolff's system in order to allow a greater and more intelligent control over the resource allocations based on needs not just demand (Column 1, lines 53 – 67).

Regarding claims 11 and 51, which depends on claim 10s and 50, respectively, Wolff teaches that the configuration operations performed by all the configuration elements in response to receiving commands from the configuration service implement the user requested configuration operation (Column 6, lines 10 – 14; 55 – 64).

Regarding claims 12 and 52, which depends on claims 10 and 50 respectively, Wolff teaches that the user requested configuration operation comprises a request to allocate a resource in the system to a host in the system, and wherein the configuration operations performed by the configuration elements receiving the commands from the configuration service implement the user requested resource allocation (Column 6, lines 55 – 60).

Regarding claims 3, 13, 27, 34, 43, and 53, which depends on claims 2, 12, 26, 33, 42, and 52, respectively, Wolff teaches that the request to allocate the at least one system resource comprises a request to allocate additional storage space in the system to the host (Column 6, lines 56 – 64).

Regarding claims 4, 14, 28, 35, 44, and 54, which depends on claims 3, 10, 27, 34, 43, and 50 respectively, Wolff teaches that the request to allocate the at least one system resource includes a request to allocate the storage space to a logical volume in

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the host, wherein the resources managed by the elements comprise a storage device, a switch, a host adaptor, file system, and a volume manager (Column 2, lines 37 – 41), wherein the element managing the storage device allocates the storage space to the host (Column 6, lines 56 – 64), wherein the element managing the switch is capable of allocating at least one path in the switch to the storage device to allow the host to access the allocated storage space (Column 5, lines 42 – 45), wherein the element managing the host adaptors allocates at least one host adaptor in the host to communicate with the switch to access the allocated storage space, and wherein the element managing the volume manager assigns the allocated storage space in the device to the requested logical volume used by the host (Column 7, lines 5 – 13).

Regarding claims 5, 15, 29, 36, 45, and 55, which depends on claims 4, 10, 28, 35, 44, and 50, respectively, Wolff teaches that the system is capable of including multiple storage devices, switches, and host adaptors in the host, and wherein there is at least one separate element to manage each storage device and switch in the system (Column 6, lines 35 – 46).

Regarding claims 6, 16, 37, 46, and 56, which depends on claims 5, 15, 36, 45, and 55 respectively, Wolff teaches that in response to the communicated commands, determining, with the elements, at least one switch and storage device in the system capable of supplying the storage and path resources to satisfy the user request, wherein the commands are communicated to the elements managing the determined switches and storage devices (Column 6, lines 35 – 46).

Regarding claims 17 and 57, which depends on claims 16 and 56 respectively, Wolff teaches that the configuration elements query information on the system components to determine the system components capable of satisfying the user requested configuration operation (Column 10, lines 26 – 39).

Regarding claims 18 and 58, which depends on claims 16 and 56 respectively, Wolff teaches that the configuration policy parameters are provided with each configuration element that specify how each configuration element configure the associated switch, storage device, or host adaptor (Column 9, lines 47 – 50).

Regarding claims 19 and 59, which depends on claims 18 and 58 respectively, Wolff teaches that the configuration policy parameters specify a level of availability to provide with the allocated storage space (Column 11, lines 42 – 57).

Regarding claims 20 and 60, which depends on claims 14 and 54 respectively, Wolff teaches that there are multiple configuration services calling different sets of elements to provide different qualities of configurations, further comprising: selecting one of the configuration services (Column 61, lines 1 – 56).

Regarding claims 21 and 61, which depends on claims 14 and 54 respectively, Wolff teaches that the system is further capable of including backup programs and snapshot image programs, wherein there is at least one configuration element to manage each backup program and snapshot image program in each host (Column 10, lines 13 – 23).

Regarding claims 24 and 64, which depends on claims 10 and 50 respectively, Wolff teaches that the configuration service proxy object enables either remote or local

access to the configuration service to configure capable of configuring resources in the system (Column 10, lines 13 – 23).

Response to Arguments

Applicant's arguments filed November 28, 2005 have been fully considered but they are not persuasive.

The applicant argues that the reference, Sankaranarayan, does not teach configuring resources, thus when combined with Wolff, would not teaches using API commands to configure resources. The examiner disagrees, the reference Sankaranarayan teaches a resource manager controls the resources and responds to configuration changes that involve the network and the resources (Column 2, lines 5 – 11) by allocating resources to clients in response to requests from them, as part of that configuration of the network and resources the resource manager communicates using API commands to the resources and resource providers to command the resource providers to perform the necessary function with their resources to handle the configuration changes in the system (Column 2, lines 43 – 48; Column 8, line 66 – Column 9, line 4; Column 36, lines 64 – 67). Sankaranarayan does configure the resources and teaches that API commands are a way to do that, with policy implementation being combined with Wolff discloses a more intelligent control over network resources with a set of intelligent commands and policy configurations.

Conclusion

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Bates whose telephone number is (571) 272-3980. The examiner can normally be reached on 8 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on (571) 272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KB

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February 15, 2006


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SUPERVISORY PATENT EXAMINER